INV

MORGAN L. FITCH P.R.
FRANCIS A. EVEN
JULIUS TABIN
JOHN F. FLANNERY
ROBERT B. JONES

JAMES J. SCHUMANN JAMES J. HAMILL

TIMOTHY E. LEVSTIK

JOSEPH E. SHIPLEY

KENNETH H. SAMPLES PHILIP T. PETTI

JOSEPH T. NABOR STEVEN C. SCHROER

TIMOTHY P. MALONEY

STEPHEN S. FAVAKEH

STEVEN G. PARMELEE

BRUCE R. MANSFIELD

KENDREW H. COLTON'

MICHAEL A. SANZO\*

SCOTT A. MENGHINI NORMAN N. KUNITZ\*

THOMAS F. LEBENS

G. PAUL EDGELL®

RAMON R. HOCH\*

RUDY KRATZ

RICHARD E. WAWRZYNIAK

RICHARD A. KABA

KARL R. FINK MARK W. HETZLER ITCH, EVEN, TABÍN & FLANNERY

ATTORNEYS AND COUNSELLORS AT LAW

Established in 1859

SUITE 401L - 1801 K STREET, NW WASHINGTON, D.C. 20006-1201 TELEPHONE (202) 419-7000 FACSIMILE (202) 419-7007

ILLINOIS OFFICE

SUITE 1600 - 120 SOUTH LA SALLE STREET, CHICAGO, ILLINOIS 60603-3406 TELEPHONE (312) 577-7000

CALIFORNIA OFFICE

SUITE 250 - 9276 SCRANTON ROAD, SAN DIEGO, CA 92121-7708 TELEPHONE (858) 552-1311

COLORADO OFFICE

SUITE 213 - 1942 BROADWAY, BOULDER, COLORADO 80302 TELEPHONE (303) 402-6966

November 18, 2004

EDWARD E. CLAIR
JON A. BIRMINGHAM
JOHN E. LYHUS
STEVEN M. FREELAND
DONNA E. BECKER
MICHAEL G. VRANICAR
BRIAN S. CLISE
MARTIN R. BADER
DEREK L. PRESTIN
MARK A. BORSOS
DAVID R. JAGLOWSKI
TIMOTHY R. BAUMANN
JEFFREY A. CHELSTROM
NICHOLAS T. PETERS
KENNETH A. PLOCHINSKI
MEGAN J. REDMOND

PATENT AGENTS

ERIC J. WHITESELL LILIA I. SAFONOV

OF COUNSEL

GEORGE W. SPELLMIRE, JR. LISA M. SOMMER GEORGE H. SPENCER, P.C.\*

TECHNICAL ADVISOR

JOHN M. BRONK, PH.D.

\*ADMITTED TO D.C. BAR; D.C. PRACTICE OF ALL OTHERS LIMITED TO FEDERAL COURTS AND AGENCIES

Commissioner of Patents
U.S. Patent and Trademark Office
220 20<sup>th</sup> Street South
Customer Window, MS Amendment
Crystal Plaza Two, Lobby, Room 1B03
Arlington, VA 22202

Re:

Information Disclosure Statement

Appl. No.:

10/784,914

Filed:

February 24, 2004

Title:

Process for the Preparation of

L-Amino Acids Using Strains of the

**Enterobacteriaceae Family** 

Inventor(s):

Rieping, Mechthild

Atty. Dkt.:

7601/80980

Dear Sir:

The following documents are being submitted for appropriate action by the U.S. Patent and Trademark Office:

- 1. Information Disclosure Statement;
- 2. PTO Form 1449, List of References Cited by Applicant;
- 3. References B1-B40 and C1-C74; and
- 4. Return postcard.

Applicant does not believe that any fees are due for the filing of these documents. However, the Director is hereby authorized to charge any fee deficiency with respect to this

Commissioner for Patents November 18, 2004 Page 2

filing and any other fee required in connection with the present case, or credit any overpayment to our Deposit Account No. 06-1135 under Order No. 7601/80980.

It is respectfully requested that the enclosed postcard be stamped with the date the enclosed documents are received by the PTO and that it be returned as soon as possible.

Very truly yours,

FITCH, EVEN, TABIN & FLANNERY

Merkael A. Sange

Michael A. Sanzo Reg. No. 36,912

Attorney for Applicant

MAS:ct Enclosures

# NOV 1 8 2004 E

In re patent application of:

Rieping, Mechthild

Appl. No.: 10/784,914

Filed: February 24, 2004

For: Process for the Preparation of

L-Amino Acids Using Strains of the

**Enterobacteriaceae Family** 

Art Unit: to be assigned

Examiner: to be assigned

Atty. Dkt.: 7601/80980

# **Information Disclosure Statement**

Commissioner of Patents
U.S. Patent and Trademark Office
220 20<sup>th</sup> Street South
Customer Window, **MS Amendment**Crystal Plaza Two, Lobby, Room 1B03
Arlington, VA 22202

Sir:

Submitted herewith is a listing of documents known to Applicant and/or his attorney in compliance with the requirements of 37 C.F.R. § 1.56. Copies of the listed documents, with the exception of the United States patent(s), are also enclosed.

Applicant also wishes to make the Examiner aware of co-pending applications 10/733,776, filed December 12, 2003; 10/784,902, filed February 24, 2004; 10/794,417, filed March 8, 2004; 10/812,315, filed March 30, 2004; and 10/817,431, filed April 5, 2004.

In accordance with 37 C.F.R. § 1.98(a)(3), Applicant's undersigned attorney submits the following concise explanation of the relevance of the non-English language document cited on the accompanying form:

Reference B1, PCT published application WO 99/18228, describes a method for increasing the microbial production of specific amino acids by increasing the activity or expression of pyruvate carboxylase. An English language abstract corresponding to this

document is enclosed herewith and is cited on the accompanying list of references as document C71.

Reference B3, PCT published application WO 01/05939 A1, describes a process for the production of L-amino acids, e.g., L-lysine and L-glutamic acid, by culturing a microorganism having variation or deletion of sigma factor which acts specifically on the stationary phase. An English language abstract corresponding to this document is enclosed herewith and is cited on the accompanying list of references as document C72.

Reference B39, German patent DE 101 32 946 A1, describes a process for the fermentative production of L-amino acids by culturing Enterobacteriaceae in which the activity of at least one specific gene is increased. The process is useful in producing threonine and other amino acids for use in animal nutrition, medicine and the food industry. An English language abstract corresponding to this document is enclosed herewith and is cited on the accompanying list of references as document C73.

Reference B40, German patent DE 101 35 053 A1, describes a process for preparing L-amino acids, e.g., L-threonine, by fermenting an organism of the Enterobactericeae family in which at least the malE gene is enhanced, particularly overexpressed, and then isolating the desired amino acid. An English language abstract corresponding to this document is enclosed herewith and is cited on the accompanying list of references as document C74.

Applicant does not waive any rights to appropriate action to establish patentability over any of the listed documents should they be applied as references against the claims of the present application. This statement should not be construed as a representation that more material information does not exist or that an exhaustive search of the relevant art has been made.

Consideration of the cited documents and making the same of record in the prosecution of the above-captioned application are respectfully requested.

Applicant does not believe any fees are due for the submission of this Information Disclosure Statement other than those which have been provided. However, the Director is hereby authorized to charge any fee deficiency to our Deposit Account No. 06-1135 under Order No. 7601/80980.

Respectfully submitted,

FITCH, EVEN, TABIN & FLANNERY

Michael A. Sange

By

Michael A. Sanzo Reg. No. 36,912 Attorney for Applicant

Date **November 17**, 2004 1801 K Street, N.W., Suite 401L

Washington, DC 20006-1201 Telephone: (202) 419-7000

·Atty. Docket No.: 7601/80980 Appl. No.: 10/784,914 STOP SEPERENCES CITED BY APPLICANT (Separal sheets if necessary) Applicant(s) Rieping, Mechthild Filing Date: February 24, 2004 NOV 1 8 2004 4 Group: to be assigned **U.S. PATENT DOCUMENTS** Filing Date Examiner Document Initial Number Date Name Class Subclass If Appropriate 435 172 Jun. 28, 1979 A 1 4,278,765 Jul. 14, 1981 Debabov, et al. A 2 A 3 A 4 A 5 A 6 A 7 A 8 A 9 A 10 A 11 A 12 A 13 A 14 A 15 A 16 A 17 A 18 A 19 A 20 A 21 A 22 A 23 A 24 A 25 A 26 A 27 **Date Considered** Examiner

#### ·Atty. Docket No.: 7601/80980 Appl. No.: 10/784,914 Applicant(s) Rieping, Mechthild LIST OF REFERENCES CITED BY APPLICANT (Use several sheets if necessary) Filing Date: February 24, 2004 Group: to be assigned FOREIGN PATENT DOCUMENTS Abst./Trans. Examiner **Document Number** Date Country Class Subclass Initial Yes No B 1 WO 99/18228 Apr. 15, 1999 **WIPO** C12P 13/00 $\mathbf{X}$ B 2 WO 99/53035 Oct. 21, 1999 WIPO C12N 9/00 WO 01/05939 A1 Jan. 25, 2001 **WIPO** C12N 1/21 B 3 Х **B** 4 WO 01/92545 A1 Dec. 6, 2001 **WIPO** C12N 15/70 B 5 WO 02/06459 A1 Jan. 24, 2002 **WIPO** C12N 9/02 WO 02/29080 A2 Apr. 11, 2002 **WIPO** C12P 13/04 B 6 B 7 WO 02/36797 A2 **WIPO** 13/00 May 10, 2002 C12P **WIPO** 13/08 B 8 WO 02/064808 A1 Aug. 22, 2002 C12P **B9** WO 02/081698 A2 Oct. 17, 2002 WIPO C12N 15/31 B 10 WO 02/081721 A2 Oct. 17, 2002 **WIPO** C12P 13/00 40 WO 02/081722 A2 WIPO C12P 13/08 B 11 Oct. 17, 2002 B 12 WO 03/004598 A2 Jan. 16, 2003 **WIPO** C12N WO 03/004663 A2 Jan. 16, 2003 **WIPO** B 13 C12P WO 03/004664 A2 **WIPO** C12P **B** 14 Jan. 16, 2003 B 15 WO 03/004665 A2 Jan. 16, 2003 **WIPO** C12P WO 03/004669 A2 Jan. 16, 2003 **WIPO** 13/00 B 16 C12P B 17 WO 03/004670 A2 Jan. 16, 2003 **WIPO** C12P 13/00 B 18 WO 03/004671 A2 Jan. 16, 2003 **WIPO** C12P 13/00 WO 03/004674 A2 Jan. 16, 2003 **WIPO** C12P 13/04 B 19 B 20 WO 03/006666 A2 Jan. 23, 2003 **WIPO** C12P 13/00 WO 03/008603 A2 Jan. 30, 2003 **WIPO** C12P 13/00 B 21 B 22 WO 03/008604 A2 Jan. 30, 2003 **WIPO** C12P 13/00 WO 03/008605 A2 Jan. 30, 2003 **WIPO** B 23 C12P 13/00 B 24 WO 03/008606 A2 Jan. 30, 2003 **WIPO** C12P 13/00 B 25 WO 03/008607 A2 Jan. 30, 2003 **WIPO** C12P 13/00 **WIPO** B 26 WO 03/008608 A2 Jan. 30, 2003 C12P 13/00

Examiner

B 27

WO 03/008609 A2

Jan. 30, 2003

**WIPO** 

Date Considered

C12P

13/00

#### Atty. Docket No.: 7601/80980 Appl. No.: 10/784,914 Applicant(s) Rieping, Mechthild LIST OF REFERENCES CITED BY APPLICANT (Use several sheets if necessary) Filing Date: February 24, 2004 Group: to be assigned FOREIGN PATENT DOCUMENTS Abst./Trans. Document Number Date Class Subclass Examiner Country Initial Yes No WO 03/008610 A2 Jan. 30, 2003 **WIPO** C12P 13/00 B 28 B 29 WO 03/008612 A2 Jan. 30, 2003 **WIPO** C12P 13/00 Jan. 30, 2003 **WIPO** C12P 13/00 B 30 WO 03/008613 A2 B 31 WO 03/008614 A2 Jan. 30, 2003 **WIPO** C12P 13/00 WO 03/008615 A2 Jan. 30, 2003 **WIPO** C12P 13/00 B 32 B 33 WO 03/038106 A2 May 8, 2003 **WIPO** C12P 13/14 Sep. 18, 2003 **WIPO** C12P 13/04 B 34 WO 03/076635 A1 Jun. 22, 1988 C12N 15/00 B 35 EP 0 271 838 A2 **EPO** B 36 EP 0 994 190 A2 Apr. 19, 2000 **EPO** C12N 15/31 C12N B 37 EP 1 013 765 A1 Jun. 28, 2000 **EPO** 15/31 B 38 EP 1 149 911 A2 Oct. 31, 2001 **EPO** C12N 15/52 DE 101 32 946 A1 C12N B 39 Jul. 6, 2001 Germany 15/31 Х Jul. 18, 2001 C12P B 40 DE 101 35 053 A1 Germany 13/04 $\mathbf{X}^{\cdot}$ B 41 B 42 B 43 B 44 B 45 B 46 B 47 B 48 B 49 B 50 B 51 B 52 B 53 B 54 Date Considered Examiner

### Atty. Docket No.: 7601/80980 Appl. No.: 10/784,914 Applicant(s) LIST OF REFERENCES CITED BY APPLICANT Rieping, Mechthild (Use several sheets if necessary) Filing Date: February 24, 2004 Group: to be assigned Examiner Initial OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.) C 1 ANDREWS, et al., "Cloning, Sequencing, and Mapping of the Bacterioferritin Gene (bfr) of Escherichia coli K-12," J. Bacteriol. 171:3940-3947 (1989). C 2 BLANKENHORN, et al., "Acid- and Base-Induced Proteins during Aerobic and Anaerobic Growth of Escherichia coli Revealed by Two-Dimensional Gel Electrophoresis," J. Bacteriol. 181:2209-2216 (1999). C 3 BLATTNER, et al., "The Complete Genome Sequence of Escherichia coli K-12," Science 277:1453-1462 (1997). C 4 BOOS, et al., "Maltose/Maltodextrin System of Escherichia coli: Transport, Metabolism, and Regulation," Microbiol. Mol. Biol. Rev. 62:204-229 (1998). C 5 BRUNE, et al., "Cloning and Sequencing of the Adenylate Kinase Gene (adk) of Escherichia coli," Nucleic Acids Res. 13:7139-7151 (1985). C 6 CARRIER, et al., "Library of Synthetic 5' Secondary Structures to Manipulate mRNA Stability in Escherichia coli," Biotechnol. Prog. 15:58-64 (1999). C 7 CLARKE, et al., "Nucleotide Sequence of the pntA and pntB Genes Encoding the Pyridine Nucleotide Transhydrogenase of Escherichia coli," Eur. J. Biochem. 158:647-653 (1986). C 8 COLE, et al., "The Nucleotide Sequence of the malT Gene Encoding the Positive Regulator of Escherichia coli Maltose Regulon," Gene 42:201-208 (1986). DANOT, "A Complex Signaling Module Governs the Activity of MalT, the Prototype of an Emerging Transactivator C 9 Family," Proc. Natl. Acad. Sci. USA 98:435-440 (2001). C 10 DIRUSSO, "Nucleotide Sequence of the fadR Gene, a Multifunctional Regulator of Fatty Acid Metabolism in Escherichia coli," Nucleic Acids Res. 16:7995-8009 (1988). C 11 ENOS-BERLAGE, et al., "Complex Metabolic Phenotypes Caused by a Mutation in yigF, Encoding a Member of the Highly Conserved YER057c/YjgF Family of Proteins," J. Bacteriol. 180:6519-6528 (1998). C 12 FOUNTOULAKIS, et al., "Enrichment of Low Abundance Proteins of Escherichia coli by Hydroxyapatite Chromatography," Electrophoresis 20:2181-2195 (1999). C 13 FRANCH, et al., "U-Turns and Regulatory RNAs," Curr. Opin. Microbiol. 3:159-164 (2000). C 14 GARRIDO-PERTIERRA, "Isolation and Properties of Salmonella typhimurium Mutants Defective in Enolase," Revista Española de Fisiologia 36:33-40 (1980).

GULICK, et al., "Evolution of Enzymatic Activities in the Enolase Superfamily: Crystal Structures of the L-Ala-D/L-Glu

HEIM, et al., "Cloning an Escherichia coli Gene Encoding a Protein Remarkably Similar to Mammalian Aldehyde

HOGG, et al., "Nucleotide Sequence and Analysis of the mgl Operon of Escherichia coli K12," Mol. Gen. Genet.

**Date Considered** 

JENSEN, et al., "Artificial Promoters for Metabolic Optimization," Biotechnol. Bioeng. 58:191-195 (1998).

HOFNUNG, Divergent Operons and the Genetic Structure of the Maltose B Region in Escherichia coli K12," Genetics

Epimerases from Escherichia coli and Bacillus subtilis," Biochemistry 40:15716-15724 (2001).

Examiner

C 15

C 16

C 17

C 18

C 19

Dehydrogenases," Gene 99:15-23 (1991).

76:169-184 (1974).

229:453-459 (1991).

			Atty. Docket No.: 7601/80980	Appl. No.: 10/784,914		
LIST OF REFERENCES CITED BY APPLICANT (Use several sheets if necessary)			Applicant(s) Rieping, Mechthild			
			Filing Date: February 24, 2004	Group: to be assigned		
Examiner Initial	OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)					
	C 20	KAGA, et al., "Rnase G-Dependent Degradation of the eno mRNA Encoding a Clycolysis Enzyme Enolase in Escherichia coli," Biosci. Biotechnol. Biochem. 66:2216-2220 (2002).				
	C 21	KIRKPATRICK, et al., "Acetate and Formate Stress: Opposite Responses in the Proteome of Escherichia coli," J. Bacteriol. 183:6466-6477 (2001).				
	C 22	KLEIN, et al., "Cloning, Nucleotide Sequence, and Functional Expression of the Escherichia coli Enolase (eno) Gene in a Temperature-Sensitive eno Mutant Strain," J. Seq. Mapping 6:351-355 (1996).				
	C 23	KNAPPE, et al., "A Radical-Chemical Route to Acetyl-CoA: The Anaerobically Induced Pyruvate Formate-Lyase System of Escherichia coli," FEMS Microbiol. Rev. 75:383-398 (1990).				
	C 24	KOMATSUBARA, et al., "Transductional Construction of a Threonine-Producing Strain of Serratia marcescens," Appl. Environ. Microbiol. 38:1045-1051 (1979).				
	C 25	LANDGRAF, et al., "The Role of H-NS in One Carbon Metabolism," Biochimie 76:1063-1070 (1994).				
	C 26	LEE, et al., "Global Analysis of Transcriptomes and Proteomes of a Parent Strain and an L-Threonine-Overproducing Mutant Strain," J. Bacteriol. 185:5442-5451 (2003).				
	C 27	MACPHERSON, et al., "Identification of the GalP Galactose Transport Protein of Escherichia coli," J. Biol. Chem. 258:4390-4396 (1983).				
	C 28	MARTIN, et al., "Forskolin Specifically Inhibits the Bacterial Galactose-H <sup>+</sup> Transport Protein, GalP," J. Biol. Chem. 269:24870-24877 (1994).				
	C 29	MASUDA, et al., "Improvement of Nitrogen Supply for L-Threonine Production by a Recombinant Strain of Serratia marcescens," Appl. Biochem. Biotechnol. 37:255-265 (1992).				
	C 30	McPHERSON, et al., "Complete Nucleotide Sequence of the Escherichia coli gdhA Gene," Nucleic Acids Res. 11:5257-5267 (1983).				
	C 31	MEYER, et al., "Molecular Characterization of Glucokinase from Escherichia coli K-12, J. Bacteriol. 179:1298-1306 (1997).				
	C 32	MISSIAKAS, et al., "Modulation of the Escherichia coli o <sup>E</sup> (RpoE) Heat-Shock Transcription-Factor Activity by the RseA, RseB and RseC Proteins," Mol. Microbiol. 24:355-371 (1997).				
	C 33	NAGELKERKE, et al., "2-Deoxygalactose, a Specific Substrate of the Salmonella typhimurium Galactose Permease: Its Use for the Isolation of galP Mutants," J. Bacteriol. 133:607-613 (1978).				
	C 34	NIERSBACH, et al., "Cloning and Nucleotide Sequence of the Escherichia coli K-12 ppsA Gene, Encoding PEP Synthase," Mol. Gen. Genet. 231:332-336 (1992).				
	C 35		lution Structure and Functional Ligand Screening of HI0719, a Highly Conserved Protein from the YjgF/YER057c/UK114 Family," <i>Biochemistry 42</i> :80-89 (2003).			
	C 36	POSTMA, "Galactose Transport in Salmon	ella typhimurium," J. Bacteriol. 129:630-639 (	1977).		

QIU, et al., "The Escherichia coli polB Locus Is Identical to dinA, the Structural Gene for DNA Polymerase II," J. Biol.

RAIBAUD, et al., "Maltotriose Is the Inducer of the Maltose Regulon of Escherichia coli," J. Bacteriol. 169:3059-3061

Date Considered

Examiner

C 37

C 38

(1987).

Chem. 272:8611-8617 (1997).

## LIST OF REFERENCES CITED BY APPLICANT

(Use several sheets if necessary)

-Atty. Docket No.: 7601/80980

Appl. No.: 10/784,914

Applicant(s)

Rieping, Mechthild

			Filing Date: February 24, 2004	Group: to be assigned		
Examiner Initial		OTHER PRIOR ART (Inclu	ding Author, Title, Date, Pertinent Pages, Etc.)	· · · · · · · · · · · · · · · · · · ·		
	C 39					
	C 40	RAVNIKAR, et al., "Structural and Functional Analysis of a Cloned Segment of Escherichia coli DNA That Specifies Proteins of a C <sub>4</sub> Pathway of Serine Biosynthesis," J. Bacteriol. 169:4716-4721 (1987).				
	C 41	REYES, et al., "Overproduction of Malk Protein Prevents Expression of the Escherichia coli mal Regulon," J. Bacteriol. 170:4598-4602 (1988).				
	C 42	RICHET, et al., "MalT, the Regulatory Protein of the Escherichia coli Maltose System, Is an ATP-Dependent Transcriptional Activator," EMBO J. 8:981-987 (1989).				
	C 43	RÖDEL, et al., "Primary Structures of Escherichia coli Pyruvate Formate-Lyase and Pyruvate-Formatre-Lyase-Activating Enzyme Deduced from the DNA Nucleotide Sequences," Eur. J. Biochem. 177:153-158 (1988).				
	C 44	ROMEO, et al., "Identification and Molecular Characterizatrion of csrA, a Pleiotropic Gene from Escherichia coli That Affects Glycogen Biosynthesis, Gluconeogenesis, Cell Size, and Surface Properties," J. Bacteriol. 175:4744-4755 (1993).				
	C 45	SABE, et al., "Molecular Cloning of the Phosphoenolpyruvate Carboxylase Gene, ppc, of Escherichia coli," Gene 31:279-283 (1984).				
	C 46	SCHLEGEL, et al., "Network Regulation of the Escherichia coli Maltose System," J. Mol. Microbiol. Biotechnol. 4:301-307 (2002).				
	C 47	SCHMITZ, et al., "Reduced Transaminase B (IIvE) Activity Caused by the Lack of yjgF Is Dependent on the Status of Threonine Deaminase (IIvA) in Salmonella enterica Serovar Typhimurium," J. Bacteriol. 186:803-810 (2004).				
	C 48	SCHREIBER, et al., "A New Mechanism for the Control of Prokaryotic Transcriptional Regulator: Antagonistic Binding of Positive and Negative Effectors," Mol. Microbiol. 35:765-776 (2000).				
	C 49	SPRING, et al., "The Purification and Characterization of Escherichia coli Enolase," J. Biol. Chem. 246:6797-6802 (1971).				
	C 50	STEPHENS, et al., "The Pyruvate Dehydrogenase Complex of Escherichia coli K12 - Nucleotide Sequence Encoding the Pyruvate Dehydrogenase Component," Eur. J. Biochem. 133:155-162 (1983).				
	C 51	STEPHENS, et al., "The Pyruvate Dehydrogenase Complex of Escherichia coli K12 - Nucleotide Sequence Encoding the Dihydrolipoamide Acetyltransferase Component," Eur. J. Biochem. 133:481-489 (1983).				
	C 52	STEPHENS, et al., "Nucleotide Sequence of the Lipoamide Dehydrogenase Gene of Escherichia coli K12," Eur. J. Biochem. 135:519-527 (1983).				
	C 53	SUGITA, et al., "Cloning and Characterization of the Mutated Threonine Operon (thrA <sub>1</sub> 5A <sub>2</sub> 5BC) of Serratia marcescens," Gene 57:151-158 (1987).				
	C 54	SUNNARBORG, et al., "Regulation of the Glyoxylate Bypass Operon: Cloning and Characterization of iclR," J. Bacteriol. 172:2642-2649 (1990).				
	C 55	SUZUKI, et al., "Mapping, Cloning, and DNA Sequencing of pepB Which Encodes Peptidase B of Escherichia coli K-12," J. Ferment. Bioeng. 82:392-397 (1996).				
	C 56	THORSNESS, et al., "Inactivation of Isocitrate Dehydrogenase by Phosphorylation Is Mediated by the Negative Charge of the Phosphate," J. Biol. Chem. 262:10422-10425 (1987).				
	C 57	VALLE, et al., "Nucleotide Sequence of the Promoter and Amino-Terminal Coding Region of the Glutamate Dehydrogenase Structural Gene of Escherichia coli," Gene 23:199-209 (1983).				
Examiner			Date Considered			

## Atty. Docket No.: 7601/80980 Appl. No.: 10/784,914 Applicant(s) Rieping, Mechthild LIST OF REFERENCES CITED BY APPLICANT (Use several sheets if necessary) Filing Date: February 24, 2004 Group: to be assigned Examiner OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.) Initial C 58 VENTER, et al., "Molecular Dissection of Membrane-Transport Proteins: Mass Spectrometry and Sequence Determination of the Galactose-H<sup>+</sup> Symport Protein, GalP, of Escherichia coli and Quantitative Assay of the Incorporation of [ring-2<sup>13</sup>C]histidine and <sup>15</sup>NH<sub>3</sub>," Biochem J. 363:243-252 (2002). C 59 VIDAL-INGIGLIARDI, et al., "A Small C-Terminal Region of the Escherichia coli MalT Protein Contains the DNA-Binding Domain," J. Biol. Chem. 268:24527-24530 (1993). VOGEL, et al., "Cloning and Sequenc of the mdh Structural Gene of Escherichia coli Coding for Malate C 60 Dehydrogenase," Arch. Microbiol. 149:36-42 (1987). C 61 VOLZ, "A Test Case for Structure-Based Functional Assignment: The 1.2 Å Crystal Structure of the yigF Gene Product from Escherichia coli," Protein Science 8:2428-2437 (1999). WAGNER, et al., "The Free Radical in Pyruvate Formate-Lyase Is Located on Glycine-734," Proc. Natl. Acad. Sci. USA C 62 89:996-1000 (1992). C 63 WALMSLEY, et al., "8-Anilino-1-Naphthalenesulfonate Is a Fluorescent Probe of Conformational Changes in the D-Galactose-H<sup>+</sup> Simport Protein of Escherichia coli," J. Biol. Chem. 269:17009-17019 (1994). WALTON, et al., "Nucleotide Sequence of the Escherichia coli Uridine Phosphorylase (udp) Gene," Nucleic Acids Res. C 64 17:6741 (1989). WASINGER, et al., "Small Genes/Gene-Products in Escherichia coli K-12," FEMS Microbiol. Lett. 169:375-382 (1998). C 65 WENTE, et al., "Different Amino Acid Substitutions at the Same Position in the Nucleotide-Binding Site of Aspartate C 66 Transcarbamoylase Have Diverse Effects on the Allosteric Properties of the Enzyme," J. Biol. Chem. 266:20833-20839 (1991).C 67 WONG, et al., "Transcription of pfl Is Regulatred by Anaerobiosis, Catabolite Repression, Pyruvate, and oxrA: pfl::MU dA Operon Fusions of Salmonella typhimurium," J. Bacteriol. 171:4900-4905 (1989). C 68 WYBORN, et al., "Expression of the Escherichia coli yfiD Gene Responds to Intracellular pH and Reduces the Accumulation of Acidic Metabolic End Products," Microbiology 148:1015-1026 (2002). C 69 YANO, et al., "Directed Evolution of an Aspartate Aminotransferase with New Substrate Specificities," Proc. Natl. Acad. Sci. USA 95:5511-5515 (1998). C 70 YOSHIDA, et al., "Physical Map Location of a Set of Escherichia coli Genes (hde) Whose Expression Is Affected by the Nucleoid Protein H-NS," J. Bacteriol. 175:7747-7748 (1993). C 71 Abstract of Reference B1, WO 99/18228. C 72 Abstract of Reference B3, WO 01/05939. C 73 Abstract of Reference B39, DE 101 32 946. C 74 Abstract of Reference B40, DE 101 35 053. C 75 C 76

Date Considered

Examiner